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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/774,180

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Sanjay K. Sancheti

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EXAMINER

LE, DINH THANH

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action SummaryApplication No. ☒

10/774,180

Applicant(s)

SANCHETI, SANJAY K.

Examiner

DINH T. LE

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2 and 4-9 is/are allowed.
- 6) ☒ Claim(s) 10-18 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2816

NON-FINAL REJECTION

The rejection over Kurd (US 6,043,717) is withdrawn in view of the amendments to the claims.

New prior art reference necessitated a new ground rejection is below:

Claim Objection

Claim 4 is objected to because it is dependent from canceled claim 3. Correction is required.

Claim 10 is objected to because it does not clearly recite the steps of the method claim, i.e., the recitation “a phase generator . . . delay blocks” on lines 3-4 is not the step. Correction is required.

Claim Rejections

Claim Rejections - 35 USC § 112

Claims 4, 7-18 and 20-23 are remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

In claim 4, the recitation “the phase generator is operable for generating a plurality of phase of second input signal” is confusing because it is inconsistent with what is recited in claim 1. For example, claim 1 recites on line 9 that the phase generator generates “first output signal” not input signal.

In claim 7, the recitation “a first control signal” on line 1 is confusing because it is unclear if this is additional “signal” or further recitation of the previously claimed “signal” on line 9 of claim 1.

In claims 8 and 22, the recitation “the delay time” on line 2 lacks clear antecedent basis.

In claim 10, it is not understood how the delay blocks can be “configured” on line 5 to operate in DLL mode the signal on line 8 can cause the phase generator to operate in phase locked loop mode since the phase generator is not the PLL circuit or DLL circuit, and how the phase generate can be “operated” as a VCO.

In claim 12, the recitation “phase detector” on line 3 is confusing because it is unclear if this is additional “phase detector” or further recitation of the previously claimed “phase detector” on line 8 of claim 10.

In claim 15, it is unclear what is meant by “a configurable phase detector generator configurable” on line 3, how the control signal on line 6 can change the first mode to a second mode. The description is incomplete because the claimed loop circuit does not have an input/output. Thus, the claimed loop circuit may not perform the recited function. Also, the recitation “second control signal” on line 6 is confusing because the circuit does not have “a first control signal”. The same is true for recitation “second feedback line” and “third control signal” on line 3 of claim 20.

In claim 16, it is unclear where the “feedback line” comes from.

In claim 18, it is unclear how each of said delay elements can comprise an input of a respective multiplexer and where the multiplexer comes from.

Art Unit: 2816

The remaining claims are dependent from the above claims and therefore also considered indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10, 12-17 and 20-23 are rejected under 35 USC 102 (b) as being anticipated by Zarate et al (US 6,937,077).

Zarate et al discloses in Figure 2 a circuit comprising:

- a phase generator (206) for generating an output signal (224) from an input signal (226);
and
- a phase detector (204) for generating a phase detector (228) to cause the phase generator (206) to operate as a delay locked loop circuit or a phase locked loop circuit.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 18 are rejected under 35 USC 103 (a) as being unpatentable over Zarate et al (US 5,937,077) in view of Paakinson (D404227314A).

Art Unit: 2816

Zarate et al discloses a circuit with all of the limitations of the base claims as stated above but does not disclose that each delay block is associated with a multiplexer.

Paakinson teaches in Figure 4 a selectable delay line comprising a cascaded delay elements each having a multiplexer (20) coupled to a respective delay (RD) for providing widely selectable delay times through the adjustment of input resistors (rd), see the Abstract.

It would have been obvious to a person having skill in the art at the time the invention was made to employ the delay line taught by Paakinson in the modified circuit of Zarate for the purpose of widely selecting delay times through the adjustment of the input resistors.

Response to Applicant's Arguments

The applicant's arguments over Kurd (US 6,043,717) is persuasive without traverse.

Allowable Subject Matter

Claims 1-2 and 4-9 are allowed because the prior art does not suggest the phase-frequency detector as combined in claim1.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY CALLAHAN can be reached at (571) 272-1740.

Art Unit: 2816

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11 December 2005



DINH LE
Primary Examiner